

WHAT IS CLAIMED IS:

1. A digital signal line transmission system with reduced echo, comprising:  
a communication line between a carrier and a user terminal;  
a bridgetap line having a first end connected to said communication line;  
5 an adaptor connected to said bridgetap line, said adaptor having a capacitance;  
wherein said adaptor reduces the effect of echo from said bridgetap line on a rate of  
data transmission to said user terminal over said communication line.
2. The system of claim 1, wherein said capacitance is between approximately  
0.04-2.0 mf.
- 10 3. The system of claim 2, wherein said capacitance is approximately 0.05 mf.
4. The system of claim 2, wherein said capacitance is approximately 0.068 mf.
5. The system of claim 1, wherein a length of said bridgetap line is between  
approximately 250-650 feet.
6. The system of claim 1, wherein said adaptor changes a resonance  
15 characteristic of said bridgetap line to that of a bridgetap line that is at least approximately  
300 feet longer,
7. The system of claim 6, wherein said adaptor changes a resonance  
characteristic of said bridgetap line to that of a bridgetap line that is approximately 400 feet  
longer.
- 20 8. The system of claim 1, wherein said bridgetap splices into said  
communication line within approximately 1000 feet from user terminal.
9. The system of claim 1, wherein said adaptor improves said rate by at least  
approximately 300 kb/s.
10. The system of claim 1, wherein said adaptor improves said rate by  
25 approximately 300-566 kb/s.
11. The system of claim 1, wherein said capacitance has a voltage rating of at  
least 150 v.
12. The system of claim 1, wherein said adaptor is water-tight.

13. The system of claim 1, wherein said adaptor is connected adjacent to a second end of said bridgetap.

14. The digital signal line transmission system with reduced echo, comprising:  
a communication line between a carrier and a user terminal;

5 a bridgetap line having a first end spliced into said communication line, said bridgetap line having a length between approximately 250-650 feet; and

an adaptor connected adjacent to a second end of said bridgetap line, said adaptor having a capacitance of 0.04-2.0 mf, said adaptor being water-tight and having a sufficient voltage rating to withstand being struck by lightning;

10 wherein said adaptor reduces the effect of echo from said bridgetap line on a rate of data transmission to said user terminal over said communication line.

15. The system of claim 14, wherein said capacitance is approximately 0.05 mf.

16. The system of claim 14, wherein said capacitance is approximately 0.068 mf.

17. The system of claim 14, wherein said adaptor changes a resonance  
15 characteristic of said bridgetap line to that of bridgetap line that is at least approximately 300 feet longer.

18. The system of claim 14, wherein said adaptor changes a resonance characteristic of said bridgetap line to that of bridgetap line that is at least approximately 400 feet longer.

20 19. The system of claim 14, wherein said bridgetap splices into said communication line within approximately 1000 feet from said user terminal.

20. The system of claim 14, wherein said adaptor improves said rate by at least approximately 300 kb/s.

21. The system of claim 14, wherein said adaptor improves said rate by  
25 approximately 300-566 kb/s.

22. A method for providing digital signal line service, comprising:  
identifying a communication line between a carrier and a user terminal;  
identifying a bridgetap line connected to said communication line; and

P18652.S03

changing a resonance characteristic of said bridgetap line to that of a bridgetap line longer than 650 feet.

23. The method of claim 22, further comprising providing digital signal line service to said user terminal.

5 24. A method for providing digital signal line service, comprising:  
identifying a communication line between a carrier and a user terminal;  
identifying a bridgetap extending between approximately 250-650 feet from said communication line; and

10 connecting a portion of said bridgetap adjacent an end thereof with an adaptor having capacitance between approximately 0.04-2.0 mf.

25. The method of claim 24, further comprising providing digital signal line service to said user terminal.